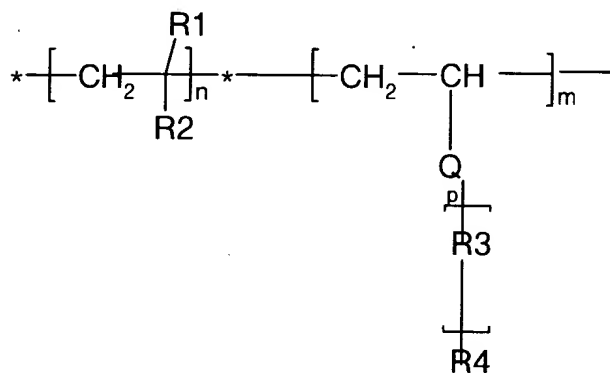


# WHAT IS CLAIMED IS:

1. An aqueous superplasticizer solution for concrete compositions comprising a polymeric superplasticizer and an air-detraining effective amount of an air detraining agent which includes a block polyether containing ethylene oxide and propylene oxide units.

2. The aqueous superplasticizer solution of claim 1, wherein the air detraining agent includes a comb polymer represented by the following general formula (I):



where  $\text{R}_1 = \text{H}$  or  $\text{CH}_3$ ;

$\text{R}_2 = \text{COOM}, \text{OCH}_3, \text{SO}_3\text{M}, \text{O-CO-CH}_3, \text{CO-NH}_2$ , where M is a salt of Na, Ca, K, or Mg;

$\text{R}_3 =$  an alkylene oxide group selected from the group consisting of ethylene oxide, propylene oxide and/or butylene oxide, and wherein the alkylene oxide groups can be in either a block or random distribution;

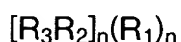
$\text{R}_4 = \text{CH}_3$  or alkyl;

$\text{Q} = \text{C(O)O}, \text{C(O)NH}, \text{CH}_2\text{O}, \text{CH}_2\text{N}, \text{O}$ ;

m and n are such that between 98% to 2 % of m units and between about 2% to about 98% of n units are present in the polymer; and

p is between 1 to 300.

3. The aqueous superplasticizer solution of claim 1, wherein the air detraining agent includes a block polyether which is a block copolymer of ethylene oxide and propylene oxide represented by the following general formula (II):



wherein:

R<sub>1</sub> is an initiator containing reactive terminal groups capable of adding to C<sub>2</sub> – C<sub>4</sub> epoxides,

R<sub>2</sub> is either propylene oxide or butylene oxide;

R<sub>3</sub> is ethylene oxide, and

n represents the functionality of the initiator and is a number greater than or equal to 2, and wherein

R<sub>3</sub> and R<sub>2</sub> are interchangeable in the formula.

4. The aqueous superplasticizer solution of claim 3, wherein the block polyether is a block copolymer of ethylene oxide and up to about 30% of propylene oxide.

5. The aqueous superplasticizer solution of claim 1, wherein the air detraining agent is dispersed throughout the solution in an amount between about 0.01 wt.% to about 1.0 wt.%.

6. The aqueous superplasticizer solution of claim 5, wherein the air detraining agent is dispersed throughout the solution in an amount between about 0.01 wt.% to about 0.7 wt.%.

7. The aqueous superplasticizer solution of claim 5, wherein the air detraining agent is dispersed throughout the solution in an amount between about 0.1 wt.% to about 0.5 wt.%.

8. A cement composition which comprises a hydraulic cement and an aqueous superplasticizer solution as in any one of claims 1-7.

9. The composition of claim 8, wherein the superplasticizer solution is present in an amount of at least about 0.005 wt.%, based on the total weight of the cement composition.

10. The composition of claim 9, wherein the superplasticizer solution is present in an amount between about 0.005 wt.% to about 5.0 wt.%.

11. The composition of claim 9, wherein the superplasticizer solution is present in an amount between about 0.03 wt.% to about 1.0 wt.%.